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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/768,374 | 01/22/2001 | Hemal V. Shah | 10559-370001/P10176 | 2368 |
| 20985 | 7590 | 09/02/2004 | EXAMINER | |
| FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081 | | | | CHANKONG, DOHM |
| ART UNIT | | PAPER NUMBER | | |

2152
DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/768,374 | SHAH ET AL. | |
| | Examiner | Art Unit | |
| | Dohm Chankong | 2152 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 July 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,4-18 and 21-30 is/are rejected.
- 7) Claim(s) 2,3,19 and 20 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/7/2004 9/7/2004</u>) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- 1> Applicant's amendment filed on 6.28.2004 in response to Examiner's Office Action has been reviewed. The following rejections now apply.
- 2> Claims 1-29 are presented for examination.

Claim Rejections - 35 USC § 103

- 3> The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
- 4> Claims 1 and 8 are rejected under 35 U.S.C 103(a) as being unpatentable over Murthy et al, U.S Patent No. 5,610,905 ["Murthy"], in view of Wang et al, U.S Patent No. 6,708,223 ["Wang"] in further view of Official Notice.
- 5> As to claim 1, Murthy discloses a method comprising:
receiving a packet at a proxy node from a first node that generated the packet using a first protocol [column 4 <lines 11-20> | column 22 <lines 25-38> | claim 4 where: the bridge is equivalent in functionality to the proxy node and the station in a network segment is equivalent to the first node];

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translating the packet using a second protocol used by a second node [column 22 <lines 25-38> | claim 4]; and

sending the translated packet from the proxy node to the second node [claim 4]; wherein the proxy node manages first and second endpoints corresponding to the first and second protocols [column 22 <lines 25-38>].

Murthy does not specifically disclose that the network is a system area network or define the first and second protocols as first and second transport-layer, connection-oriented, byte stream based protocols.

6> Wang teaches that a system area network is well known in the art as a common network implementation [column 6 <lines 9-14>]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Murthy's network segment to include the use of a system area network so the nodes can utilize high-speed network interfaces (column 6, lines 21-23).

7> Murthy discloses translating between a first protocol and a second protocol [column 4 <lines 26-27 | claim 4] but does not specifically define the protocols. Official Notice is taken that it is well known and expected in the networking art to utilize transport-layer, connection-oriented protocols at network nodes (especially TCP), as it is the de facto standard for transmitting data over the Internet.

8> As to claim 8, Murthy discloses a method of protocol processing comprising:

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receiving a packet at a proxy node from a first node that generated the packet using a first protocol wherein the packet is addressed to a second node in the system area network that uses a second protocol [claims 1 and 4];

processing the packet in the proxy node [claim 4]; and

sending a response from the proxy node to the first node using the first protocol, if said processing results in a determination that the packet need not be translated and sent to the second node [column 20 <lines 34-38> where: the monitoring port number is also the sender of the packet].

Murthy does not specifically disclose that the network is a system area network or that the first and second protocols comprise first and second transport-layer, connection-oriented, byte stream based protocols.

9> Wang teaches that a system area network is well known in the art as a common network implementation [column 6 <lines 9-14>]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ortega to include the use of a system area network so the nodes can utilize high-speed network interfaces (column 6, lines 21-23).

10> Murthy discloses translating between a first protocol and a second protocol [claim 4] but does not specifically disclose the protocols. Official Notice is taken that it is well known and expected in the networking art to utilize transport-layer, connection-oriented protocols

at network nodes (especially TCP), as it is the de facto standard for transmitting data over the Internet.

11> Claims 4, 5, 9 and 10 are rejected under 35 U.S.C 103(a) as being unpatentable over Murthy, Wang and an Official Notice, in further view of Speight et al, 4th USENIX Windows Systems Symposium Paper 2000, Pp. 113-124 of the Proceedings, August 3-4, 2000 ["Speight"].

12> As to claims 4 and 5, Murthy does disclose translation from one protocol to a second protocol, but does not specifically disclose that the protocols are TCP/IP and a lightweight, system area network protocol. Speight discloses that a lightweight, system area network protocol and TCP/IP protocol can be implemented in a system area network [Section 3 <"Window Sockets Direct Path">]. It would have been obvious to one of ordinary skill in the art to implement these two protocols into Murthy's system for joining network segments. One would have been motivated to do this implementation so a system area network segment could be joined and monitored by the bridge of Murthy's system and be in communication with a common TCP implemented network.

13> Claims 6 and 7 are rejected under 35 U.S.C 103(a) as being unpatentable over Murthy, Wang, and an Official Notice, in further view of Wipfel et al, U.S Patent No. 6,151,688 ["Wipfel"].

14> As to claims 6 and 7, Murthy does disclose a method any packet-based network, with client computers (“network client”) coupled to the bridge (“proxy node”) through the network port (“network node”) and a second client terminal also coupled to the bridge (“application node”) [Figure 1], but does not specifically disclose that the network is a system area network. Wipfel discloses a system area network with network clients, application nodes and network nodes [Figure 1 | column 6 <lines 12-14>]. It would have been obvious to one of ordinary skill in the art at the time the invention was to have implemented a network segment in Murthy as a system area network as defined by Wipfel. One would have been motivated to do this to obtain the network advantages provided by the cluster nodes of a system area network.

15> Claims 9 and 10 do not teach or further define over the limitations recited in claims 4 and 5. Therefore, claims 9 and 10 are rejected for the same reasons as set forth in claims 4 and 5, supra.

16> Claims 11-18 are rejected under 35 U.S.C 103(a) as being unpatentable over Murthy in view of Wipfel, in further view of an Official Notice.

17> As to claim 11, Murthy discloses a system comprising:
a proxy node comprising a processor configured for:

receiving a first packet from the network client through the network node addressed to the application node using a first protocol [claim 4]; and if the first packet meets a specified criterion, translating the first packet using a second protocol used by the application node, and sending the translated first packet to the application node [Figure 1 <items A₀ and A₅ | column 22 <lines 25-30> | claim 4 where: the criterion is if the packet is of the same protocol as the network segment to which it is being transmitted – that is, if the packet is not of the same protocol, it is translated to a second protocol of the destination application node ("A₅")]; Murthy discloses a network comprising network clients, a proxy node and network nodes [Figure 1 where: clients (A₀...A₅) are comparable to network clients, the bridge is comparable to the proxy node and the ports are comparable to network nodes] but does not specifically disclose the implementation of a system area network or that the first and second protocols comprise first and second transport-layer, connection-oriented, byte stream based protocols.

18> Wipfel discloses a system area network comprising a network node, a proxy node, and an application node; and a network client [Figure 1 | column 6 <line 58> to column 7 <line 14>]. It would have been obvious to one of ordinary skill in the art at the time the invention was to have implemented a network segment in Murthy as a system area network as defined by Wipfel. One would have been motivated to do this to obtain the network advantages provided by the cluster nodes of a system area network.

19> Murthy discloses translating between a first protocol and a second protocol [claim 4] but does not specifically disclose the protocols. Official Notice is taken that it is well known and expected in the networking art to utilize transport-layer, connection-oriented protocols at network nodes (especially TCP), as it is the de facto standard for transmitting data over the Internet.

20> As to claim 12, Murthy discloses the system of claim 11 wherein the proxy node processor is further configured for processing the first packet if the first packet does not meet specified criteria [column 22 <lines 25-30> where: if the first packet does not meet the criteria - that is, it is of the same protocol as the destination network segment, the processor continues transmission of the packet].

21> As to claim 13, Murthy does not disclose the system of claim 12 wherein the proxy node processor is further configured for sending a response to the network client through the network node using the first protocol, the response being in reply to the first packet if the first packet does not meet the specified criteria. However, Official Notice is taken that it is well known and expected in the art to include a failure notification mechanism in a network system to notify a sending client if a packet of data was not properly transmitted to its destination. It would have been obvious to one of ordinary skill in the art to include this safety mechanism in Murthy's network system to warn clients when their packets are not properly sent to their destination.

22> Claims 14-16 do not teach or further define over the limitations recited in claims 11-13. Therefore, claims 14-16 are rejected for the same reasons as set forth in claims 11-13, supra.

23> Claim 17 does not teach or further define over the limitations recited in claim 4. Therefore, claim 17 is rejected for the same reasons as set forth in claim 4, supra.

1> As to claim 18, Murthy discloses the system of claim 11, further comprising a plurality of network clients, and wherein the network comprises a plurality of network nodes, a plurality of proxy nodes and a plurality of application nodes [Figure 1 where: clients (A0...A5) are comparable to network clients, the bridge is comparable to the proxy node and the ports are comparable to network nodes], wherein each proxy node comprises a respective processor configured for:

receiving an input packet from one of the network clients through one of the network nodes addressed to a particular one of the application nodes using a first protocol [claim 4]; and

if the input packet meets a specified criterion, translating the input packet using a second protocol used by the particular application node, and sending the translated input packet to the particular application node [Figure 1 <items A0 and A5> | column 22 <lines 25-30> | claim 4 where: the criterion is if the packet is of the same protocol as the network segment to which it is being transmitted – that is, if the packet is not of the same protocol, it is translated to a second protocol of the destination application node (“A5”)]; .

24> Claims 21-30 do not teach or further define over the limitations recited in claims 11-18.

Therefore, claims 21-30 are rejected for the same reasons as set forth in claims 11-18, supra.

Allowable Subject Matter

25> Claims 2, 3, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

26> Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection necessitated by Applicant's amendments.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is (703)305-8864. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DC


ZARNI MAUNG
PRIMARY EXAMINER